California Regional Water Quality Control Board
San Diego Region

Terry Tamminen
Secretary for Environmental Protection

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Arnold Schwarzenegger
Governor

September 14, 2004

In reply refer to:
WPS:05-1256.02:quacd
LD:06-0990.02:mcdab

To: Interested Parties

Dear Representatives:

RE: TENTATIVE ORDER NO. R9-2004-0295 "TENTATIVE WASTE DISCHARGE REQUIREMENTS FOR THE PORT OF SAN DIEGO, CAMPBELL SHIPYARD BAY SEDIMENT CAP, CLOSURE AND MAINTENANCE, SAN DIEGO BAY, SAN DIEGO COUNTY"

Enclosed for with this letter is a copy of tentative Order No. R9-2004-0295. If adopted, tentative Order will establish closure, post closure, maintenance, and monitoring requirements for an engineered cap to be located within the offshore area of the former Campbell Shipyard leasehold. A copy of the tentative Order (including WDRs and Monitoring and Reporting Plan) is being sent to you for review because you are either identified as a discharger responsible for the facility or the Regional Board has your name on an Interested Parties List for this facility.

The San Diego Regional Water Quality Control Board is scheduled to hold a hearing to consider adoption of tentative Order R9-2004-0295 on October 13, 2004. The October Regional Board meeting will commence at **9:00 A.M.** and is open to public participation. The Regional Board meeting will be held at the offices of the **Regional Water Quality Control Board, 9174 Sky Park Court, Suite 100, San Diego, CA 92123**. The Regional Board will accept written comments on this tentative Order until 5:00 P.M. on October 12, 2004.

The heading portion of this letter includes a Regional Board code number noted after "In reply refer to:" In order to assist us in the processing of your correspondence please include this code number in the heading or subject line portion of all correspondence and reports to the Regional Board pertaining to this matter. Should you have any questions concerning the above matter, please contact Mr. Brian McDaniel at (858) 627-3927 or by email at **mcdab@rb9.swrcb.ca.gov.**

Sincerely,

JOHN H. ROBERTUS
Executive Officer

cc: Interested/Affected Parties List

INTERESTED PARTIES LIST

Mr. Joe Mello
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State Water Resources Control Board
P.O. Box 944212
Sacramento, CA 94244-2120

Ms. Kerry McNeill
Local Enforcement Agency,
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Mr. Sandor Halvax
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Mr. Scott Sobiesch
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Los Angeles District
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Mr. Bruce Reznik
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INTERESTED PARTIES LIST (continued)

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San Diego CA 92104

Mr. Bob Brodberg
OEHHA
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Mr. Jim Peugh
San Diego Audobon Society
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San Diego CA, 92106

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. R9-2004-0295

TENTATIVE WASTE DISCHARGE REQUIREMENTS
FOR THE
PORT OF SAN DIEGO
CAMPBELL SHIPYARD BAY SEDIMENT CAP
CLOSURE AND POST CLOSURE MAINTENANCE
SAN DIEGO BAY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. On May 24, 1995, the Regional Board Executive Officer issued Cleanup and Abatement Order (CAO) No. 95-21 to Campbell Industries and Marine Construction and Design Company Holdings, Inc establishing cleanup levels at the Campbell Shipyard for upland soils, groundwater, and offshore bay sediments adjacent to the Campbell Shipyard wharves and boat ways. Cleanup and Abatement Order No. 95-21 required the clean up of approximately 17,000 cubic yards (cy) of contaminated bay sediment containing elevated concentrations of polychlorinated biphenyls (PCBs), copper, zinc, lead, tributyltin (TBT), polynuclear aromatic hydrocarbons (PAHs) and total petroleum hydrocarbons that have accumulated at the former Campbell Shipyard waterside leasehold in Central San Diego Bay sediments over the years. Addenda Nos. 1 and 2 to Cleanup and Abatement Order No. 95-21 were issued by the Regional Board Executive Officer to establish additional sampling requirements, to establish a cleanup level and time schedule, and to extend the time schedule. Addendum No. 3 added the Port of San Diego (Port) as a responsible party identified in Order No. 95-21 (and addenda thereto) and changed the title of the Order to reflect that modification. Currently, shipyard operations have ceased and existing structures have been removed and demolished.

2. Directive No. 3 of Cleanup and abatement Order No. 95-21 established the following concentration limits for bay sediments located within the offshore leasehold at the former Campbell Shipyard:

CONSTITUENT	**BAY SEDIMENT (mg/kg) DRY WEIGHT**
Copper	810
Zinc	820
Lead	231
Tributyltin (TBT)	5.75
High Molecular Weight Polyaromatic Hydrocarbons (HPAH)	44
Polychlorinated biphenyls (PCBs)	0.95
Total Petroleum Hydrocarbons (TPH)	4,300

3. On March 25, 2002, the Port submitted a report entitled "Interim Technical Memorandum Sediment Remediation Alternatives Evaluation Former Campbell Shipyard, San Diego, California". The report described several remedial alternatives using technical effectiveness, implementability, environmental effects/habitat impacts, and estimated costs as evaluation criteria. The report selected capping in place as the preferred remedial alternative for contaminated sediments at the site. Additionally, the report describes a proposed transient marina with 20 to 30 slips, floating dock, and a hotel dock to be constructed over the engineered cap in the future. The marina and docks are not part of the remediation project to be conducted by the Port but are included to allow for an analysis of cumulative impacts.

4. On July 30, 2004, the Port submitted a report entitled "60% Basis of Design Report." The report describes the 9.2 acres remediation project to be conducted on the former 12.9- acre leasehold area formerly occupied by the Campbell Shipyard, and extends along about 1,200 linear feet of shoreline. The project will consist of dredging 35,900 cubic yards of sediment, creation of 1 acre of shallow subtidal habitat, demolition of the existing shipways and marine rails, retrofitting an existing mole pier, repair and reconstruction of 1,230 feet of existing seawall, placement of rock revetment in front of the existing seawall, potential construction of a 90-foot wave attenuation panel to protect the shallow subtidal habitat area, and extension of a storm drain.

5. The site is located approximately 4,000 feet to the southwest of the Rose Canyon fault zone. The active Spanish Bight fault, a fault strand within the Rose Canyon zone, has been inferred to be within 1,320 feet of the site. Other recognized active faults include the Coronado Banks fault system about 11 miles to the southwest and the Elsinore fault system about 42 miles to the northeast. No large earthquakes have been associated with the Rose Canyon fault during historic times.

6. The cap system must be monitored, maintained, and repaired in future years to ensure that the contaminants of concern (COCs) continue to be contained by the cap and water quality standards are not adversely affected. The Port must provide assurances of financial responsibility to ensure that funds are available to maintain, monitor, and repair the cap in future years in the event that the Port fails or refuses to respond in meeting obligations associated with the cap.

7. The Water Quality Control Plan. San Diego Basin (9) (Basin Plan) was adopted by the Regional Board on September 8, 1994 and subsequently approved by the State Water Resource Control Board (State Board) on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the Regional Board and approved by the State Board. The Basin Plan designates beneficial uses and narrative and numerical water quality objectives, and prohibitions, which are applicable to the discharges, regulated under this Order.

The Basin Plan identifies the following beneficial uses of San Diego Bay to be protected:

a. Industrial service supply
b. Navigation
c. Contact water recreation
d. Noncontact water recreation
e. Commercial and sport fishing
f. Preservation of biological habitats of special significance
g. Estuarine habitat
h. Wildlife habitat
i. Rare, threatened, or endangered species
j. Marine habitat
k. Migration of aquatic organisms
1. Shellfish harvesting

DREDGING

8. Dredging will be accomplished by mechanical clamshell bucket. To minimize turbidity outside of the project site, the Port proposes to use double silt curtains, comprised of a geotextile fabric supported by a floatation boom, surrounding the dredging area.

9. The method for dewatering dredge sediment includes sediment settling in the barge, decanting the supernatant water from the barge on-site with hoses, addition of an appropriate amount of Type II Portland cement slurry to bind the free water in the sediment, re-handling at a designated stockpile area at the Tenth Avenue Marine Terminal, and loading into trucks for transportation and disposal at the Otay Landfill.

10. With the exception of approximately 1,000 cy, the sediment has been profiled as California non-hazardous waste and will be disposed of at one or more landfill(s) that are properly permitted under Federal and applicable State requirements. Approximately 1,000 cy of contaminated sediment from the shipways area, impacted by a limited extend of petroleum hydrocarbon free product and PCB, is presently being assessed and may be characterized as hazardous waste, which will be disposed of at a facility permitted to receive such waste.

11. Dredging and the disposal of dredged spoils may cause turbidity, dissolved oxygen depletion, and impact other physical, chemical, and biological parameters in the receiving waters.

12. Dredging and disposal of dredged sediment as regulated by this Order is consistent with State Water Resources Control Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California, and with the Water Quality Control Plan, San Diego Basin.

13. There is the potential for the introduction of pollutants from two urban runoff discharge points located in the vicinity of the former Campbell Shipyard: a 30-inch storm drain with an outfall to San Diego Bay, located north of the existing shipway and northwest of the

habitat cap, and an urban stream (Switzer Creek) with an outfall to San Diego Bay located in front of the Tenth Avenue Marine Terminal (TAMT). Sediment samples collected from Switzer Creek contained concentrations of total petroleum hydrocarbons, lead, organochlorine pesticides, PCBs and polynuclear aromatic hydrocarbons (PAHs). Continued discharge of urban runoff and/or re-suspension of contaminated bay sediments could result in contamination of the engineered cap.

CAP DESIGN

14. The Report of Waste Discharge includes consideration of the following factors in developing the design of the cap isolation of existing pollutants in bay sediments, potential short and long-term water quality impacts from consolidation of sediments, impacts from hydrodynamic factors (i.e., action by waves, tidal currents, propeller wash from operations at the TAMT and recreational boats); bioturbation, geotechnical aspects (i.e., bearing capacity of sediments, settlement), and stability of the cap under forces generated by seismic events (i.e., liquefaction and spreading).

15. The cap system is comprised of two design elements:

    A. Engineered cap: The largest area of the cap will be comprised of the engineered cap designed for permanent isolation of environmental pollutants in bay sediments. The engineered cap is comprised of a geotextile overlain by two feet of sand for isolation of pollutants in existing sediments; a layer comprised of one foot of well graded gravelly aggregate material to act as a filler layer between the overlying armor stone and the underlying sand, while also protecting against bioturbation, and a final layer of two feet of armoring stone to protect against erosive forces that may be imposed upon the cap. Additional foundation support, in selected areas overlying unconsolidated bay sediments at the edge of the cap, will be strengthened by construction of a "dumped rock foundation."

    B. Habitat cap: The habitat cap will be comprised of 1-acre of eelgrass habitat area. The design of the habitat cap includes a base layer of sand overlain by a geotextile layer, a one foot layer of well graded gravelly aggregate material to act as a protective layer for the geotextile, and a final layer of two feet of poorly-graded sediments with grains sizes ranging from medium to coarse sand to provide a suitable substrate for to support the overlying eelgrass habitat. The function of the geotextile is to help isolate any underlying residual environmental pollutants and protect against bioturbation into the underlying sediment.

       Other structural elements, including a containment berm and potential wave attenuation panel are proposed to protect and/or enhance the stability of the cap system.

16. The engineered cap is intended to provide effective and permanent isolation of environmental pollutants above the following concentrations in bay sediments:

Contaminant of Concern	**Concentration (mg/kg) Dry Weight**
Copper	264
Lead	88
Zinc	410
Total Polyaromatic Hydrocarbons (TPAHs)	3.47
Polychlorinated biphenyls (PCBs)	0.11
Total Petroleum Hydrocarbons (TPH)	<14
Tributyltin (TBT)	0.121

The sediment concentrations of the contaminants of concern (COCs) specified above are consistent with the sediment cleanup levels established by Cleanup and Abatement Order No. 95-21 and addenda thereto.

17. The Port shall establish and maintain financial assurances in the amount of $21,589,000. The financial assurances shall cover the costs estimated for closure, post-closure maintenance, and corrective actions for foreseeable releases from the following the offshore waste management at the former Campbell Shipyard:

TASK	**Estimated Cost**	**Source of Cost Estimate**
Closure	$15,778,000	RWD (2004) - 60% Cost Estimate
Post-Closure Maintenance and Monitoring	$561,000	RWD (2004) - 60% Cost Estimate
Corrective Actions for reasonably foreseeable releases	$5,250,000	RWD (2004) - 60% Cost Estimate – Tasks 9, 10, 11, 12, 13, 20, 31, 32 and 33
Total =	$21,589,000	

The Port shall update the financial assurances, as necessary to ensure that adequate funds are available, to cover the cost of closure, post closure, monitoring and maintenance, and corrective actions in response to a reasonably foreseeable release from the offshore waste management unit at the former Campbell Shipyard.

18. The discharge of pollutants into surface water and sediments could cause the long-term loss of designated beneficial uses of surface waters in San Diego Bay. The Former Campbell Shipyard Offshore Engineered Cap System, for isolation of environmental pollutants in San Diego Bay sediments, shall be rated as Threat to Water Quality (TTWQ) category "I" in accordance with 23 CCR §2200. The complexity (CPLX) ranking is based upon the type of facility. For Class III landfills, the complexity ranking is category "A."

19. The Port has prepared and certified a Final Supplemental Environmental Impact Report (EIR) dated October 2003 in accordance with the California Environmental Quality Act (CEQA) [Public Resources Code, Division 13, Chapter 3, Section 21000 *et seq*.]. The engineered and habitat caps and the dredging operation, as approved by the Port, will not have a significant adverse effect on the environment.

20. The Regional Board, in establishing the requirements contained herein, considered factors, including but not limited to, the following:

    (a) Past, present, and probable future beneficial uses of the waters under consideration;

    (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto;

    (c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors, which affect water quality in the area;

    (d) Economic considerations;

    (e) Beneficial uses to be protected and water quality objectives reasonably required for that purpose;

    (f) Other waste discharges; and

    (g) The need to prevent nuisance.

21. The Regional Board has considered all water resource related environmental factors associated with the discharge of waste as described in this Order.

22. California Code of Regulations (CCR), Title 27, § 20090(d) – for discharges of nonhazardous wastes, provides the following exemption from some provisions of "Title 27":

    "Actions taken by or at the direction of public agencies to cleanup and abate conditions of pollution or nuisance resulting from unintentional or unauthorized releases of waste or pollutants to the environment; provided that wastes, pollutants, or contaminated materials removed from the immediate place of release shall be discharged according to SWRCB-promulgated sections of Article 2, Subchapter 2, Chapter 3, Subdivision 1 of this division (§ 20200 et seq.); and further provided the remedial actions intended to contain wastes at the place of release shall implement the applicable SWRCB-promulgated provisions of this chapter to the extent feasible."

23. The proposed actions to be conducted by the San Diego Unified Port District are exempted from the prescriptive requirements of CCR Title 27. The applicable regulatory

requirements for containment of wastes at the place of release are included in the Prohibitions, Specifications, Provisions, Monitoring and Reporting requirements of this Order. The applicable requirements include: specifications for the design and construction of the cap, obtaining acceptable financial assurances; implementation of long term monitoring and maintenance for the engineered and habitat cap systems.

24. The Regional Board has notified the Port and all other known interested parties of the intent to prescribe waste discharge requirements as described in this Order.

25. The Regional Board in a public meeting heard and considered all comments pertaining to the proposed discharge.

IT IS HEREBY ORDERED, that the Port of San Diego (hereinafter discharger) shall comply with the following:

A. PROHIBITIONS

1. Discharges of wastes in a manner and to lands, which have not been specifically described in the report of waste discharge and for which valid waste discharge requirements are not in force are prohibited.

2. Neither the treatment, storage nor disposal of waste shall create a condition of pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.

   (a) Runoff from debris and dredge material processing and dewatering areas beyond the limits of lands specifically designated for processing and dewatering, as described in the report of waste discharge referenced in the Findings of this Order, is prohibited.

   (b) Dredging, storage or disposal of dredged material in a manner that causes a violation any Basin Plan prohibition; or any Basin Plan water quality objective established for San Diego Bay; or causes a violation any Bays and Estuaries Policy prohibition; or Bays and Estuaries Policy water quality principles and policies is prohibited.

3. The discharge of waste shall not adversely affect beneficial uses of the water resources as established in the Regional Board Basin Plan.

4. Odors, vectors, and other nuisances of waste origin beyond the limits of the site are prohibited.

5. Basin Plan prohibitions shall not be violated.

6. The discharge or placement of “surplus soils”, *e.g.*, stockpiled soils associated with the construction of the cap system, shall not cause pollution, contamination

or nuisance or adversely affect beneficial uses of the ground or surface waters as established in the Basin Plan.

7. The discharge or placement of "dredge spoils", *e.g.*, stockpiled dredge spoils associated with the dredging operations and/or construction of the cap system, shall not cause pollution, contamination or nuisance or adversely affect beneficial uses of the ground or surface waters as established in the Basin Plan.

8. The integrity of the engineered or habitat cap shall not be compromised by the installation of piles for the purpose of supporting engineered structures over the footprint of the cap system (i.e., engineered cap and/or habitat cap areas).

B. DREDGING OPERATION SPECIFICATIONS

1. *VOLUME*

The volume of material dredged for Campbell Shipyard project shall not exceed 35,900 cubic yards unless the discharger obtains revised waste discharge requirements for the proposed increase.

2. *PROJECT IMPLEMENTATION*

The project shall be implemented in accordance with the Findings of this Order unless the Regional Board approves an alternative measure and shall be conducted in conformance with the following conditions:

(a) Sediment shall be removed in a manner that prevents or minimizes water quality degradation;

(b) Dredge spoils shall not be deposited in a location that may cause significant adverse effects to aquatic life, fish, shellfish, or wildlife or may harm the beneficial uses of the receiving waters, or does not create maximum benefit to the people of the state; and

(c) The project shall not cause significant adverse impacts upon a federal sanctuary, recreational area, or other waters of significant national importance.

3. *DISPOSAL OF DREDGED AND FILL MATERIAL*

All dredged and fill material shall be disposed of and/or deposited in conformance with federal, state and local laws and regulations. Prior to disposal of dredged material at any site on land that is not regulated pursuant to California Water Code Section 13263, the discharger shall submit a technical report for the review and approval of the Regional Board. The report must either demonstrate that material does not contain hazardous waste or soluble pollutants at concentrations in excess of the applicable Basin Plan surface and groundwater quality objectives for the hydrologic area of the proposed

disposal site, and the material does not contain significant quantities of decomposable waste. The discharger must apply for Waste Discharge Requirements or a waiver thereof for discharges of dredge spoils to land at other than an existing classified waste management unit.

4. *TEMPORARY STORAGE OF DREDGED MATERIAL*

Prior to temporary storage of dredged material at any site that is not regulated pursuant to California Water Code Section 13263, the discharger shall submit a technical report for the review and approval of the Regional Board. The report must either demonstrate that material does not contain hazardous waste or soluble pollutants at concentrations in excess of the applicable Basin Plan surface and groundwater quality objectives for the hydrologic area of the proposed disposal site, and the material does not contain significant quantities of decomposable waste; or demonstrate that the material and temporary storage of the material must comply with the requirements of the Regional Board Waiver Policy conditionally waiving adoption of Waste Discharge Requirements for Temporary Discharge of Specified Contaminated Soils: Dredge Spoils.

5. *MONITORING AND REPORTING*

The discharger shall comply with attached Monitoring and Reporting Program No. R9-2004-0295, and future revisions thereto as specified by the Regional Board. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. R9-2004-0295.

C. CAP CONSTRUCTION AND MAINTENANCE SPECIFICATIONS

1. *CAP DESIGN AND CONSTRUCTION*

The construction of the cap elements shall be as follows:

(a) Engineered cap: The engineered cap is comprised of a geotextile overlain by two feet of sand for isolation of pollutants in existing sediments; a layer comprised of one foot of well graded gravelly aggregate material to act as a filler layer between the overlying armor stone and the underlying sand, while also protecting against bioturbation, and a final layer of two feet of armoring stone, with a median diameter (d_{50}) of 1 foot, is specified throughout the engineered cap area to protect against erosive forces that may be imposed upon the cap. Additional foundation support, in selected areas overlying unconsolidated bay sediments at the edge of the cap, will be strengthened by construction of a "dumped rock foundation."

(b) Habitat cap: The design of the habitat cap includes a basal layer of sand overlain by a geotextile, a one foot layer of well graded coarse gravel aggregate layer to act as a protective layer for the geotextile, and a final layer of two feet of poorly-graded sediments with grain sizes ranging from

medium to coarse sand to provide a suitable substrate to support the overlying eelgrass habitat. The function of the geotextile is to help isolate any underlying environmental pollutants and protect against bioturbation into the underlying sediment; and two feet of poorly graded sediments with grain sizes of approximately 0.5 mm (medium to coarse sand) will be used to provide a suitable substrate for eelgrass.

(c) Other structural elements associated with the habitat cap will include a protective berm to provide additional lateral support to the habitat cap. The Port may potentially add a wave reflector for additional protection against erosion.

2. *MAINTENANCE SPECIFICATIONS*

(a) The cap shall be maintained such that sediments in San Diego Bay containing pollutants in concentrations in excess of "action levels", those listed in Finding No. 16 (dry weight) are contained below the main sand cap.

(b) The main cap area (engineered cap) shall be maintained at a minimum thickness of five feet including a basal two-foot layer of sand, for contaminant isolation; one foot of well graded gravelly aggregate material to act as a filler layer between the overlying armor stone and the underlying sand, and two feet of armoring stone with a median diameter (d_{50}) of 1-foot to protect against erosive forces that may be imposed upon the cap. Additional sand and/or gravel and/or armor stone shall be added to any area where the main sand cap thickness is less than four and a half feet to maintain a minimum five-foot total thickness. If visual inspections indicate the integrity of the armoring layer has been compromised, additional gravel and/or armoring stone shall be placed to raise the sand thickness back to five feet. The cap shall be repaired as expeditiously as practical.

(c) The habitat cap area shall be maintained at a minimum thickness of four feet including basal one foot layer of sand overlain by a geotextile, a one foot layer of well graded coarse gravel aggregate layer to act as a protective layer for the geotextile, and a final layer of two feet of poorly-graded sediments with grain sizes ranging from medium to coarse sand to provide a suitable substrate to support the overlying eelgrass habitat. Additional sand and/or gravel shall be added to any area where the habitat cap thickness is less than three and a half feet to maintain a minimum four-foot total thickness. If visual inspections indicate the integrity of the habitat cap has been compromised, additional sand and/or gravel shall be placed to increase the habitat cap thickness back to four feet. The cap shall be repaired as expeditiously as practical.

(d) Waste discharge requirements may be necessary for a discharge of sand, gravel, and/or armor stone at a volume greater than 5,000 cubic yards.

(e) If any of the long-term monitoring elements described in the Monitoring and Reporting Program suggest-that the cap system has been breached, or in some way contaminated, additional sampling and repair work to the cap shall be conducted as necessary.

(f) If pollutant concentrations are determined to exceed thresh-hold criteria (pollutant concentrations as dry weight) in sediments, collected during the cap monitoring program; then additional investigation and/or repair work shall be initiated by the discharger. The "action levels" referenced in this Order shall be as follows:

Contaminants of Concern	**Concentration (mg/kg by dry weight)**
Copper	264
Lead	88
Zinc	410
Total Polyaromatic Hydrocarbons (TPAHs)	3.47
Polychlorinated biphenyls (PCBs)	0.11
Total Petroleum Hydrocarbons (TPH)	<14
Tributyltin (TBT)	0.121

Sediment concentrations of COCs above the "action levels" referenced above will trigger the need for the discharger to perform further work (investigation and/or corrective action) as specified in the Monitoring and Reporting Program.

(g) The discharger shall undertake storm drain/outfall sampling described in Section F.3 of Monitoring and Reporting Program No. R9-2004-0295. The discharger shall report results to the Regional Board as required and develop recommendations for further action if the results indicate that upstream catch basin sediment exceeds the action levels identified in Specification No. C.2(f) of this Order.

(h) If the results from sediment sampling, as described in Sections F.1 or F.2 of Monitoring and Reporting Program R9-2004-0295, indicates a breakthrough of waste constituents/pollutants from the sediment below the engineered cap, repair and/or investigation shall begin within 72 hours. The minimum pollutant concentrations in the sediment, or action levels, requiring cap repair and/or investigation are as specified in Specification No. C.2(f). The Regional Board may also require additional repair and/or investigation as reasonably necessary.

(i) The structural integrity of the elements designed to protect or enhance the stability of the cap (e.g., containment berm, dumped rock foundations, rock revetment) shall be maintained as necessary to correct - the effect of settlement, erosion, vessels, or other adverse factors that threaten structural integrity of the cap (i.e., engineered or habitat cap). If visual inspections indicate unacceptable erosion, settlement, or other damage to the engineered protection or cap stability elements, the discharger shall take actions to correct the deficiency(ies) to return affected design elements to their design dimensions and functional effectiveness.

(j) All navigational warning signs/buoys shall be maintained in good condition. The anchoring shall be stable and the signs shall be intact, legible, and firmly attached to the buoys.

(k) At least two permanent surveying monuments shall be maintained from which the location and elevation of the engineered cap and containment berm can be determined throughout the post-closure maintenance period.

(l) Eelgrass shall be planted and maintained in accordance with the procedures contained in the Southern California Eelgrass Mitigation Policy (National Marine Fisheries Service).

D. SECTION 401 WATER QUALITY CERTIFICATION

The following three standard conditions apply to all certification actions, except as noted under Number 3 for denials:

1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section 13330 of the California Water Code and Section 3867 of Title 23 of the California Code of Regulations (23 CCR).

2. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR Subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. The validity of any non-denial certification action (Actions 1 and 2) shall be conditioned upon total payment of the full fee required under 23 CCR Section 3833, unless otherwise stated in writing by the certifying agency.

In addition to the three standard conditions, the Discharger shall satisfy the following:

4. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under state law. For purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.

5. In response to a suspected violation of any condition of this certification, the Regional Board may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Board deems appropriate, provided that the burden, including costs, of the reports shall be a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

6. Prior to the start of dredging, the Discharger shall conduct surveys within the project area for the presence/absence of *Caulerpa taxifolia* (Caulerpa) in accordance with the Caulerpa Control Protocol (version 1.2b, adopted January 31, 2003). If Caulerpa is detected, the Discharger may not initiate the dredging project until Caulerpa has been successfully eradicated.

E. STANDARD PROVISIONS

1. *DUTY TO COMPLY*

The discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order; or (c) denial of a report of waste discharge in application for new or revised waste discharge requirements.

2. *ENTRY AND INSPECTION*

The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

(c) Inspect at reasonable times any facilities, equipment (including monitoring

and control equipment), practices, or operations regulated or required under this Order; and

(d) Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

3. *PROPER OPERATION AND MAINTENANCE*

The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

4. *CIVIL MONETARY REMEDIES*

The California Water Code provides that any person who intentionally or negligently violates any waste discharge requirements issued, reissued, or amended by this Regional Board is subject to a civil monetary remedy of up to 20 dollars per gallon of waste discharged or, if a cleanup and abatement order is issued, up to 15,000 dollars per day of violation or some combination thereof.

5. *PENALTIES FOR INVESTIGATION, MONITORING OR INSPECTION VIOLATIONS*

The California Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and is subject to a civil liability of up to 5,000 dollars for each day in which the violation occurs.

6. *ENDANGERMENT OF HEALTH AND ENVIRONMENT*

The discharger shall report any noncompliance that may endanger health or the environment. Any such information shall be provided orally to the Regional Board within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence

of the noncompliance. The Regional Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

7. *CORRECTIVE ACTION*

The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

8. *COMPLIANCE*

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies for example, when the primary source of power of the treatment facility is failed, reduced, or lost.

9. *HAZARDOUS RELEASES*

Except for a discharge which is compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control Plan.

10. *PETROLEUM RELEASES*

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the

discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan.

11. *FINANCIAL ASSURANCES FOR CLOSURE, POST-CLOSURE AND CORRECTIVE ACTION*

Within one year of the effective date of this Order, the discharger shall establish and maintain adequate and acceptable assurances of financial responsibility for closure, post-closure monitoring and maintenance, or implementation of corrective action in response to a release of waste constituents form the waste management units. The discharger shall ensure that their selected financial assurance instrument meets the following minimum criteria:

(a) The financial assurance instrument makes funds directly available to the Regional Board upon a finding by the Regional Board that the discharger has failed or refuses to implement closure, post-closure monitoring and maintenance, or conduct corrective actions in response to a release of waste constituents from the waste management unit.

(b) The amount of the financial assurances are regularly updated to ensure that adequate funds can be made directly available to the Regional Board for implementation of closure, post-closure monitoring and maintenance, or corrective action.

F. REPORTING AND RECORDKEEPING REQUIREMENTS

1. *PERMIT REPOSITORY*

A copy of this Order shall be maintained at the discharger's administrative offices and shall be available to operating personnel at all times.

2. *MAINTENANCE OF RECORDS*

The discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample,

measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.

3. *GENERAL REPORTING REQUIREMENT*

The discharger shall furnish to the Regional Board, within a reasonable time, any information which the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

4. *PERMIT REVISION*

This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

(a) Violation of any terms or conditions of this Order;

(b) Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts; or

(c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the discharger for the modification, revocation and reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

5. *CHANGE IN DISCHARGE*

The discharger shall file a new Report of Waste Discharge at least 120 days prior to the following:

(a) Significant change in the treatment or disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste.)

(b) Change in the disposal area from that described in the findings of this Order.

(c) Increase in volume beyond that specified in this Order.

(d) Other circumstances that result in a material change in character, amount, or location of the waste discharge.

(e) Any planned change in the regulated facility or activity that may result in noncompliance with this Order.

6. *CHANGE IN OWNERSHIP*

This Order is not transferrable to any person except after notice to the Regional Board. The discharger shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgment that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. The Regional Board may require modification or revocation and reissuance of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the California Water Code.

7. *INCOMPLETE REPORTS*

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information.

8. *REPORT DECLARATION*

All applications, reports, or information submitted to the Regional Board shall be signed and certified as follows:

(a) The Report of Waste Discharge shall be signed as follows:

(1) For a corporation - by a principal executive officer of at least the level of vice-president.

(2) For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal or other public agency - by either a principal executive officer or ranking elected official.

(b) All other reports required by this Order and other information required by the Regional Board shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this provision;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and

(3) The written authorization is submitted to the Regional Board.

(c) Any person signing a document under this Section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

9. *REGIONAL BOARD ADDRESS*

The discharger shall submit reports required under this Order, or other information required by the Regional Board, to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123-4340
TEL: 858-467-2952
FAX: 858-571-6972

G. NOTIFICATIONS

1. *VESTED RIGHTS*

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from liability under federal, state or local laws, nor create a vested right for the discharger to continue the waste discharge.

2. *U.S. EPA REVIEW*

These requirements have not been officially reviewed by the United States

Environmental Protection Agency and are not issued pursuant to Section 402 of the Clean Water Act.

3. *SEVERABILITY*

The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on October 13, 2004.

TENTATIVE

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John H. Robertus
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

TENTATIVE
MONITORING AND REPORTING PROGRAM NO R9-2004-0295
FOR
THE PORT OF SAN DIEGO
CAMPBELL SHIPYARD BAY SEDIMENT CAP
CLOSURE AND POST CLOSURE MAINTENANCE
SAN DIEGO BAY

A. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Order and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Executive Officer.

2. Monitoring must be conducted according to United States Environmental Protection Agency or California Department of Health Services approved test procedures as described in the current Title 40, Code of Federal Regulations (CFR), Part 136 and 261; the current California Code of Regulations, Title 22, Article 11; or in the U.S. Environmental Protection Agency (USEPA), *"SW-846: Test Methods for Evaluating Solid Wastes Physical/Chemical Methods"* (Version 5, dated April 1998), as appropriate, unless other test procedures have been specified in this Monitoring and Reporting Program.

3. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Regional Board Executive Officer.

4. Monitoring results must be reported on discharge monitoring report forms approved by the Regional Board.

5. If the discharger monitors any pollutants more frequently than required by this Monitoring and Reporting Program, using test procedures as specified in Item No. 2 above, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report(s). The increased frequency of monitoring shall also be reported.

6. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of

five years from the date of the sample, measurement, report or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board.

7. Records of monitoring information shall include:

   (a) The date, exact place, and time of sampling or measurements, or observations;
   (b) The individual(s) who performed the sampling, measurements, or observations;
   (c) The date(s) analyses were performed;
   (d) The individual(s) who performed the analyses;
   (e) The analytical techniques or method used; and
   (f) The results of such analyses.

8. All monitoring instruments and devices, which are used by the discharger to fulfill the prescribed monitoring program, shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

9. The discharger shall report all instances of noncompliance not reported under Standard Provision E.6 of Order No. R9-2004-0295 at the time monitoring reports are submitted.

10. The monitoring reports shall be signed by an authorized person as required by Report and Record Keeping Requirement F.8 of Order R9-2004-0295.

11. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

B. INITIAL REPORT

The discharger shall notify the Regional Board by letter prior to starting their project. The notification shall be received by the Regional Board at least three days before any dredging work begins.

C. MONITORING DREDGING OPERATIONS

The discharger shall submit as part of their monitoring report the following information:

1. Estimates of the daily volume (in cubic yards) of dredge material and the location from which the material was removed.

2. The total volume (in cubic yards) of dredged material removed during the project and the

total volume (in cubic yards) of material deposited at each final disposal location.

D. VISUAL OBSERVATIONS

1. *Dredging Operations*: During any monitoring conducted pursuant to this monitoring and reporting program, visual observations shall also be made and recorded and submitted as part of the required reports. The following observations inside and outside of the silt curtain shall be made, recorded, and submitted monthly:

   (a) speed and direction of the currents;

   (b) tidal stage;

   (c) appearance of rubbish or refuse (including cans, bottles, paper, plastic, etc.), garbage, trash or any other solid waste;

   (d) appearance of oil or other materials of petroleum origin;

   (e) discoloration and extent of any visible turbidity plume; and,

   (f) odors.

2. *Monitoring of Engineered and Habitat Caps*: To ensure the caps maintain their integrity, the caps shall be monitored by divers in SCUBA gear. The divers shall perform visual inspections to ensure long-term integrity and identify areas that require periodic maintenance.

   (a) Bathymetric survey: The discharger shall conduct a bathymetric survey of the engineered and habitat caps. Results of the bathymetric survey shall be reported in the first monitoring report.

   (b) Probing the sand cap (on the habitat cap) to measure its thickness to determine whether the cap has eroded or if additional sediment has been naturally deposited at the site. Divers shall inspect the cap and side slopes for damage, including cracks-in the sediment, gashes from boat keels, localized erosion, debris penetrating the cap, bioturbation, slope failure, or other visual evidence of damage.

   (c) The perimeter berm shall be inspected for damage such as settling, slope failure, etc. Berm monitoring requires a survey of the average elevation of the crest of the berm and the average width at both the base and crest of the berm. The dimensions of the

berm shall be measured using surveys with a stadia rod and an underwater surveying tape.

(d) Divers shall verify navigational warning buoys are in good condition and that the warning signs mounted on the buoys are intact and legible.

(e) If possible, the same divers should conduct each visual inspection to more easily identify changes. Prior to conducting the inspections, the divers should review the design of the cap and the results of previous inspections.

(f) Separate visual inspections shall be conducted following construction of the habitat cap to monitor recolonization of eelgrass on the cap. Monitoring shall determine both the areal extent of eelgrass and shoot density of plants on the habitat cap. The schedule for monitoring of eelgrass habitat shall be conducted at indicated for LONG-TERM MONITORING AND REPORTING FOR CAP SYSTEM (Section I.2) and REPORTING (Section K) of this Monitoring and Reporting Program.

(g) Photographs of the top deck and side slopes, for both engineered and habitat caps shall be taken to document the condition of the sand cap, perimeter berm, eelgrass, and other associated facilities. Photographs and a narrative description of the inspection results shall be included in the next regularly scheduled monitoring report submitted to the Regional Board.

E. RECEIVING WATER MONITORING

Dredging Site

Sampling shall occur at three sampling stations. Station A is at 500 feet updrift of the dredging activities and outside any visual plume. Station B is inside any visual plume at the dredging site and/or within the silt curtain if possible. Station C is at 500 feet downdrift of the dredging activities inside any visual plume if possible. At these stations, a Secchi Disc or turbidity meter shall be used each day during dredging activities to sample turbidity. If turbidity at Station C increases more than 20% over the turbidity at Station A, the dredging operations shall be suspended and appropriate measures taken, the Regional Board Executive Officer notified and remedial measures shall be implemented.

F. SEDIMENT SAMPLING

1. *Engineered Cap Sampling Stations*

(a) The discharger shall establish stations for collecting sediment samples from beneath the armoring layer of the cap. The specific method to be used in collecting, preserving and analyzing sediment samples shall be proposed in the "Sampling and Analysis Plan" as required in Section F.1(b) of this Monitoring and Reporting Program.

(b) The discharger shall provide the Regional Board with a technical report containing a sampling and analysis plan (SAP) for sediment samples collected from the cap-monitoring network. At a minimum, the SAP shall describe the rationale for the proposed number and location of monitoring points (stations) for the purpose of collecting sediment samples from the engineered and habitat caps. The SAP may also include information on additional sampling and analysis proposed by the discharger. The minimum topics to be addressed in the "Sampling and Analysis Plan" are listed in Attachment No. 1 to this Monitoring and Reporting Program.

(c) The discharger shall provide the Regional Board with a technical report containing a Quality Assurance Project Plan (QAPP) that is consistent with the QAPP template developed for the Surface Water Ambient Monitoring Program (SWAMP) (**http://www.swrcb.ca.gov/swamp/qapp.html**). The QAPP will serve as the project specifications for data quality and quantify requirements needed for the study as well and procedures that will be used to collect, analyze, and report those data. The minimum topics to be addressed in the "Quality Assurance Project Plan" are listed in Attachment No. 2 to this Monitoring and Reporting Program.

(d) The discharger shall propose a monitoring program, including locations and frequency, for identification and sampling of sediments that accumulate upon the engineered cap. The rationale and details of the sediment accumulation monitoring program shall be included in the "Sampling and Analysis Plan" required in Section F.1(b) of this Monitoring and Reporting Program.

(e) Sampling stations shall be identified, surveyed and the coordinates recorded in the final Construction Quality Assurance (CQA) report submitted to the Regional Board.

2. *Habitat Cap Sediment Sampling Stations*

(a) Sediment samples shall be collected from locations in the habitat cap as proposed by the discharger in the SAP [see Section F.1(b) pf this Monitoring and Reporting Program] and approved by the Regional Board. Sediment samples shall be collected using an aluminum core tube, with a recommended length of 1 foot and a diameter of 2 inches, inserted into the surface of the cap. The tube should be pushed down until it reaches the gravel layer without penetrating the gravel layer or the geotextile. The depth of penetration of the core tube at each sample location shall be recorded and reported. After the core tubes are withdrawn, they should be checked to verify that the

sediment remained in the tube, and then capped at both ends.

(b) Three samples shall be collected from each core tube; from the bottom, middle, and top of the sediment column. Each sample shall be a 3-inch segment of sediment from their respective location in the core tube. The bottom and top segments are to be analyzed first. Detection of COCs above action level concentrations in the bottom sample would suggest leakage through the gravel layer into the capping sediment. COCs detected above action level concentrations only in the top sample may indicate possible settling from sources outside the cap system. The middle sample will be held, but not analyzed, unless the analyses of the top or bottom samples reveal concentrations of COCs at the action level concentrations (by dry weight) or greater. Analysis of the middle sample will indicate the extent of recontamination of the sediment if COCs are detected above action level concentrations in the top or bottom sample.

(c) Sample collection, handling, and custody shall be performed using protocols and techniques appropriate for sampling COC-contaminated materials. Personnel handling the samples shall decontaminate sampling equipment after each use to avoid potential cross-contamination or direct contact.

3. Storm Drain Sampling and Analysis

(a) Sediment samples from the 30-inch storm drain and Switzer Creek shall be collected from the invert at the outfall. If there is not enough sediment available to collect a sample at the outfalls, samples should be collected, if possible, at the nearest upstream catch basin on these two systems.

(b) Samples shall be analyzed for COCs using appropriate EPA Methods as proposed in the "Sampling and Analysis Plan", as approved by the Regional Board, or other method approved by the Regional Board.

G. COMPLIANCE STATEMENTS

1. The discharger will submit statements indicating compliance or noncompliance of the former Campbell Shipyard dredging and capping project with the requirements of Order No. R9-2004-0295. Compliance statements will be submitted monthly until the dredging project is completed.

2. The discharger shall submit statements indicating compliance or noncompliance of the Engineered and Habitat Cap System with the requirements of Order No. R9-2004-0295 and whether any large storms or earthquakes were experienced.

Large storms and earthquakes are defined in Section J of this Monitoring and Reporting Program. Compliance statements shall be submitted annually for each year in which monitoring occurs.

3. Signatures on all reports shall be required as indicated in Section D.8 of Order R9-2004-0295.

H. FINAL REPORT FOR COMPLETION OF DREDGING

1. The discharger will notify the Regional Board by letter upon completion of the project. Project completion is considered to be the date on which all dredged material has been deposited at its final disposal location. The Regional Board should receive the letter within 30 days of the completion of the project.

2. The discharger shall provide the Regional Board with a final Construction Quality Assurance (CQA) Report within **120-days** after the completion of constructing the cap system. The final CQA Report shall contain the following minimum information:

(a) A delineation of the CQA management organization, including the chain of command of the CQA inspectors and contractors.

(b) A detailed description of the level of experience and training for the contractor, the work crew, and CQA inspectors for every major phase of construction, in order to ensure that the installation methods and procedures required in the containment system design will be properly installed.

(c) A description of the CQA testing protocols for preconstruction, construction and post construction including:

i. Daily Summary Reports of backfilling and capping locations and operations. The minimum information shall include the date, period covered by the report, and results of all inspection, survey and monitoring activities. Daily summary reports shall be provided in an appendix to the final CQA Report and organized in chronological order. The Daily Summary Reports will provide the chronological framework for identifying and recording all other reports.

ii. A discussion of the size method, location and frequency of sampling, sample procedure for laboratory testing, the soils or geotechnical laboratory to be used, calibration of laboratory equipment, and quality

assurance and quality control of laboratory procedures. Tabulation or inclusion of test results in an appendix to the final CQA Report.

iii. A discussion of the pass/fail criteria for sampling and testing methods to achieve the containment system design.

iv. Descriptions of corrective procedures in the event of a test failure.

v. Observations related to the transportation, handling, and storage of geosynthethic materials.

vi. Evaluation of the personnel and equipment to used to inspect and install the geosynthetic materials and pass/fail criteria and corrective procedures for material and installation procedures. vii. Narrative description and photographic results from initial visual inspection of cap construction as required by Section I.1 of this Order.

vii. Narrative description and photographic results from initial visual inspection of cap construction as required by Section I.1 of this Monitoring and Reporting Program.

(d) Final CQA Report of Testing, Reporting, and Certification: The discharger shall provide evidence that they analyzed an adequate number of test sample(s) of source materials imported for use as capping and habitat backfill materials, for the following:

i. Grain Size Distribution (American Society for Testing and Materials [ASTM] Method D422-63)

ii. In-situ Moisture Content (ASTM Method D2216)

iii. Priority Pollutant Metals (U.S. Environmental Protection Agency [EPA] publication SW846, the 6000/7000 method series)

iv. Volatile Organic Compounds (EPA publication SW846, Method 8260 as modified by Puget Sound Estuarine Protocols [PSEP])

v. Semivolatile Organic Compounds (EPA publication SW846, Method 8270 as modified by PSEP)

vi. Polychlorinated Biphenyls (PCBs) (EPA publication SW846, Method 8082 as modified by PSEP)

vii. Total Organic Carbon (Standard Methods [SM] Method 5310B)

(e) The discharger shall submit certification statements and supporting analytical results (in an appendix to the final CQA Report) from samples supporting their determination that cap and backfill materials are below the required concentrations specified in waste discharge requirements [Order R9-2004-0295, Specification C.2(f)] for constituents of concern (copper, zinc, lead, TPH, TPAHs, and PCBs). The discharger shall provide reports that the results were determined to be acceptable within the criteria indicated above. The results shall be compiled in chronological order and provided in an appendix to the final CQA report form. The reports in that appendix shall clearly identifying the following:

i. Source of samples
ii. Sampling dates
iii. Chain of custody
iv. Sampling locations
v. Discharger's certification that the samples tested and the results provided are representative of materials that were delivered to the site

I. LONG-TERM MONITORING AND REPORTING FOR CAP SYSTEM

1. Visual inspections and sediment sampling shall be accomplished within 60 days of the completion of the engineered and habitat caps. The results of initial monitoring shall be reported to the Regional Board within 60 days after completing the visual monitoring.

2. All sampling for annual monitoring shall be accomplished in March of each year in which monitoring is required following completion of the cap installation. Monitoring shall be conducted every year for the first seven years after cap construction. The seventh year after construction, only visual inspections and biological sampling shall be accomplished. The full monitoring program shall again be completed ten, fifteen, and twenty years after cap construction. The monitoring program shall continue at five-year intervals beyond the twentieth year unless the Regional Board determines that a reduced monitoring program is appropriate or that monitoring is no longer necessary. The following table demonstrates the monitoring schedule:

Year	2005	2006	2007	2008	2009	2010	2011	2012	2015	2020	2025
Years following construction	0	1	2	3	4	5	6	7	10	15	20
Visual Inspection	X	X	X	X	X	X	X	X	X	X	X
Sediment Sampling: **ANNUAL**			X	X	X		X	X			
Sediment Sampling: **QUARTERLY**	X	X				X			X	X	X
Biological Sampling		X		X		X		X	X	X	X
Habitat Restoration [a]	X	X	X	X	X	X	X	X	X	X	X
Storm Drain sampling		X	X	X	X	X	X	X	X	X	X

Compliance Statements	X	X	X	X	X	X	X	X	X	X	X

a. Habitat Restoration monitoring to be conducted during months 0, 3, 6, 12, 24, 36, 48, and 60, during the post-planting period. In the absence of any modifications by the Regional Board, habitat restoration monitoring will be conducted on every 2 years beyond the 60-month monitoring event.

3. If an inspection or sampling indicates that the cap has in some way been breached, then the sampling schedule shall revert to once per year following any needed repair. Subsequent sampling shall be based on the same intervals given above (1,2,3,4,5,6,7,10, 15, and 20 years after repair).

4. The frequency and due dates for Technical Reports and Monitoring Reports are specified in Section K [REPORTING] of this Monitoring and Reporting Program.

J. CONTINGENCY MONITORING PLAN

1. If a potential breach in or other damage to the cap system (in either the engineered or habitat areas) is identified:

(a) Sediment samples shall be collected and analyzed for COCs to determine the extent of any potential breach. The number of samples to be collected will depend on the extent of damage.

(b) The extent of damage shall be measured including area(s) and thickness of sand, gravel and/or armoring stone missing, and the area of exposed gravel.

(c) Biological tissue sampling shall be conducted in the area of the potential breach or other damage.

(d) If the surface of the cap system is found to contain COCs, which do not appear to be from a breach in the cap, additional samples shall be collected and analyzed to determine the extent, and potentially identify the source. The discharger shall also collect and analyze sediment samples from the existing 30-inch storm drain and the outfall from Switzer Creek (at the TAMT).

(e) Visual inspections shall be conducted within two weeks of a major earthquake, tsunami, or a storm event with winds of strong gale or higher (47 mph or higher); however, in certain cases of devastating disaster, the Regional Board Executive Officer may extend the two week requirement at his or her discretion. For purposes of this monitoring program, a. major earthquake is one that inflicts significant damage to

property in the metropolitan San Diego area, and/or measures 5.5 or greater on the Richter scale within 30 miles of the San Diego Convention Center. A major tsunami is one that inflicts significant damage to property in San Diego Bay.

2. If biological tissue sampling indicates any species within the habitat cap contains COCs significantly above the levels of the same species at the reference site, then additional samples of the particular species shall be collected to determine the extent of potential recontamination, as well as to identify possible sources (inside or outside of the former Campbell Shipyard leasehold). Sediment samples shall also be collected in the area where the contaminated organisms were found and analyzed for COCs to further determine whether the source of the contaminants is the capped sediment.

3. If sediment samples collected from the cap are determined to contain pollutants in excess of the action level concentrations (by dry weight), identified in Discharge Specifications C.2(f) of Order R9-2004-0295, then sediment samples shall be collected from the invert at the outfall for the 30-inch storm drain and Switzer Creek. The analytical results, supporting laboratory documentation, sample plot plan, a narrative interpretation of the results, conclusions and recommendations shall be provided to the Regional Board in the next monitoring report.

4. Any potential breach in the cap system shall be reported to the Regional Board by telephone, by voice mail, or by fax within 24 hours from the time that 1) the discharger has knowledge of the potential breach, 2) notification is possible, and 3) notification can be provided without substantially impeding cleanup or other emergency measures. Regional Board office hours are between the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, excluding state holidays. Regional Board voice mail and fax machine are on-line 24 hours a day, 7 days a week. The initial report should include information on when the potential breach was discovered, how it was discovered, potential causes, and planned corrective or investigative actions.

5. Any corrective action taken and/or repair done to the cap shall be reported in writing to the Regional Board Executive Officer within 30 days of when the discharger becomes aware of damage to or a potential breach in the cap. Subsequent written reports shall be submitted monthly in accordance with the following schedule until the damage or potential breach has been repaired or otherwise resolved.

K. REPORTING

Monitoring reports shall be submitted to the Executive Officer in accordance with the

following schedule:

Frequency	**Report Period**	**Report Due**
Monthly Monitoring Reports	January, February, March, April, May, June, July, August, September, October, November, December	By the 30th day of the following Month
Quarterly Monitoring Reports	January 1 to March 31 April 1 to June 30 July 1 to September 30 October 1 to December 31	April 30 July 30 October 30 January 30
Annual Monitoring Report	April 1 to March 31	April 30
Sampling and Analysis Plan (SAP)		December 31, 2004
Quality Assurance Plan (QAPP)		December 31, 2004
Construction Quality Assurance (CQA) Report		120 days after construction of cap system completed

The discharger shall notify the Regional Board Executive Officer by letter of the date dredging activities subside in April and the date activity resumes in September.

All Technical and Monitoring Reports shall be submitted to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123-4340

Ordered by: _____**TENTATIVE**_____
JOHN H. ROBERTUS
Executive Officer

TENTATIVE

October 13, 2004

ATTACHMENT 1

ORDER R9-2004-0295
INTERSTITIAL WATER AND SEDIMENT
SAMPLING AND ANALYSIS PLAN (SAP) FORMAT

A. Introduction and Background Information
1. Site history
2. Regulatory framework
3. Summary of previous investigations of the site
4. Location and characteristics of any current and/or historical wastewater or storm water discharges at the site.
5. Information on on-site waste disposal practices or chemical spills in the local area.
6. Site map showing adjacent area(s).
7. Site map showing site features, engineered cap, and habitat cap locations.

B. Objectives and Design of the Monitoring Program
1. Objectives of the monitoring program for the engineered and habitat cap systems.
2. Overall design of the monitoring program for the engineered and habitat cap systems.
3. Chemical analytes, including a description of their relevance to the objectives and regulatory framework.
4. Biological tests, including description of their relevance to the objectives and the regulatory framework.
5. Monitoring Station Locations
    a. Discussion of rationale for horizontal and vertical position of sediment monitoring stations (habitat cap and accumulated sediment on engineered cap).

    b. Site map(s) showing sampling locations and other pertinent features (e.g., bathymetry and current regime, outfall(s), waste disposal and spill site(s), other activities that may have affected sediments.

    c. Identification of proposed reference stations.

        i. Reference station(s) for sediment samples.
        ii. Reference station(s) for biological samples.

    d. Table showing water depth at each proposed station.

    e. Proposed depth below the surface of the cap where sediment samples will be

collected. Representative cross-sections to illustrate monitoring station and sampling interval within the cap.

ATTACHMENT 1- Continued
ORDER R9-2004-0295

C. Field Sampling Methods
   1. Discussion of monitoring station positioning method(s) (e.g., GPS, theodolite, etc.).
   2. Discussion of sampling equipment.
      a. Sediment sampling.

      b. Biological sampling.

   3. Discussion of decontamination procedures.
   4. Discussion of sample containers and labels.
   5. Description of field documentation procedures.
   6. Procedures for management and disposal of contaminated media.

D. Sample Handling Procedures
   1. Sample storage requirements (e.g., conditions, maximum holding times, preservation) for each type of sample.
   2. Chain-of-custody procedures.
   3. Delivery of samples to analytical laboratory(ies).

E. Laboratory Preparation and Analytical Methods
   1. Description of preparation method(s) used on samples prior to analysis.
      a. Sediment samples.

      b. Biological samples.

   2. Description of chemical analyses, identification of specific analytical method(s), and target detection limits.
      a. Sediment samples.

      b. Biological samples.

   3. Description of corrective action procedures.

F. Quality Assurance (QA) and Quality Control (QC) Requirements
   1. QA/QC for preparation procedures.
   2. QA/QC for chemical analyses.
   3. Data quality assurance and review procedures.

ATTACHMENT 1- Continued
ORDER R9-2004-0295

G. Data Analysis, Record Keeping, and Reporting Requirements

1. Analysis of sediment data.
2. Analysis of biological data.
3. Data interpretation.
4. Record keeping procedures.
5. Reporting procedures.

ATTACHMENT 2

ORDER R9-2004-0295
QUALITY ASSURANCE PROJECT PLAN (QAPP) FORMAT

A. Description of the project organization and responsibilities.

1. Project team members and specific responsibilities.
2. Statement of qualifications.

B. Definition of project specific data quality objectives.

C. Sampling, analysis and measurement procedures (SAP).

D. Instrument calibration procedures.

E. Procedures for recording, reducing, validating, and reporting data.

F. Procedures for performing quality assurance verification and internal quality control checks.

G. Preventive maintenance schedules.

H. Specific routine procedures to evaluate, precision, accuracy and completeness.

I. Definitions of deviations and appropriate corrective actions.

J. Information on appropriate training of personnel.